Session IV Agenda

- Report on Stakeholder Feedback **– 60 minutes**
  - Review of Session III & Feedback Requested
  - Stakeholder Feedback and DESC Responses:
    - Agenda and Meeting Topics
    - Retirement Study and TIA
    - The 2021 IRP Update
    - EE & DSM Forecasts
    - Reliability and Resource Adequacy
    - Risk Metrics & Other Topics
  - Schedule of Advisory Group Meetings for the 2022 IRP Update

<15 min break>

- Responses to Stakeholder TIA Questions **– 30 minutes**
  - Tools and Models Used
  - Study Inputs and Options Considered
  - Study Outputs and Transparency
- The Retirement Study Inputs and Process – **30 minutes**
  - Approach to Evaluating Early Coal Retirements
  - Key Inputs and Assumptions Needed for Planned Approach
  - Details of Retirement Study Timeline and Alignment with Inputs
- Preparing for Session V and Next Steps **– 15 minutes**
  - Planned Session V Agenda
  - System Reliability Materials for Stakeholders
  - Session IV Homework

DESC IRP Stakeholder Advisory Group Meeting #4

I. Report on Stakeholder Feedback

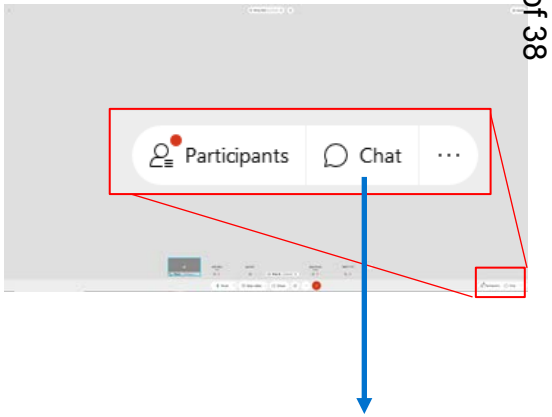
I. Report on Stakeholder Feedback

- Welcome
- Review of Session III & Feedback Requested
- Stakeholder Feedback and DESC Responses:
  - Agenda and Meeting Topics
  - Retirement Study and TIA
  - The 2021 IRP Update
  - EE & DSM Forecasts
  - Reliability and Resource Adequacy
  - Risk Metrics & Other Topics
- Schedule of Advisory Group Meetings for the 2022 IRP Update
- *Discussion*

Q&A

- Microphones will be muted during presentations; we will open them when addressing questions at end of each section
- During presentations, questions can be submitted via the chat function
  - Only questions submitted in writing will be answered during live Working Group Sessions
- Each questioner will be allowed one follow-up question before they yield the floor to the next questioner
  - Please don't ask multiple questions in one question
  - If time permits and all questioners are answered, we will come back for additional questions
- All Q&As will be responded to in writing and placed on the web page:
  - https://www.DESC-IRP-Stakeholder-Group.com

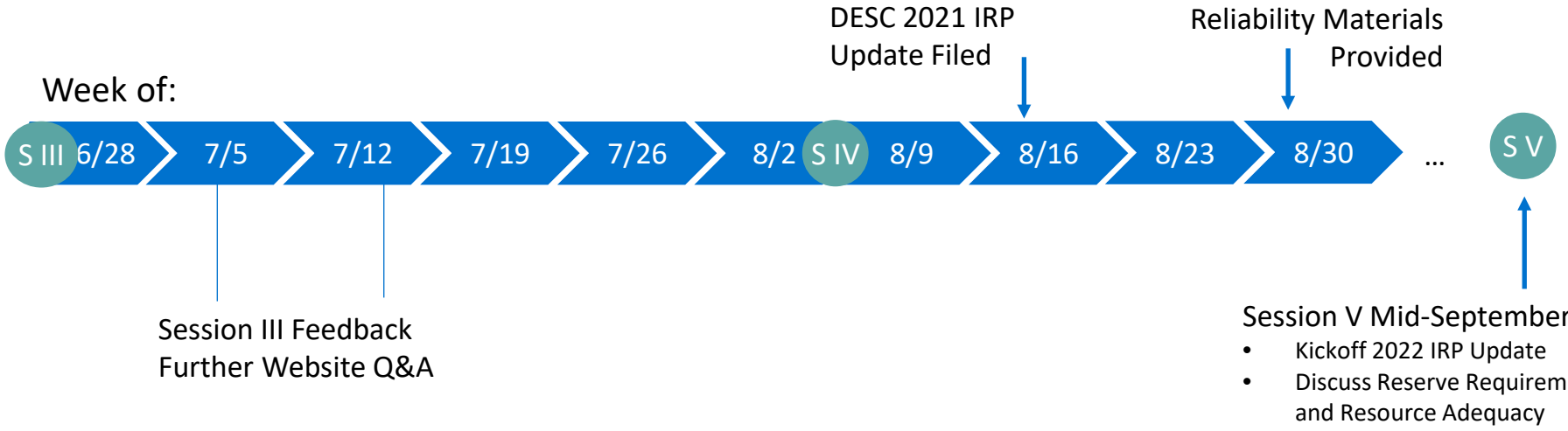
Look for the chat function in the bottom right hand corner of the WebEx screen



Please type questions into the group chat

Where are we in the process?

- The 2021 IRP Update to be filed mid-August.
- Today's content will focus on Stakeholder Feedback, the Retirement Study, and schedule of planned meetings for the 2022 IRP Update.
- Session V is anticipated in September and will focus on Reliability and Resource Adequacy and Kick off the 2022 IRP Update.



Stakeholder feedback was requested during Session III

DESC requested the following feedback at the last Advisory Group meeting:

1. Agenda Feedback: Should DESC devote a session to reliability analysis and LOLE calculation as proposed by Stakeholders following Session II?
2. Agenda Feedback: What topics would you like DESC to raise at future meetings?
3. Retirement Study: DESC has provided a list of assumptions to be considered in the retirement study. In your view, is this consistent with the order and if not, what additional assumptions need be considered?
4. Retirement Study: DESC is considering a consistent but limited set of technologies as replacement options for each of the retirement dates including CCs, CTs and storage. What 3 to 4 options do you suggest be considered (please recognize that we are evaluating the retirement dates only here not the optimal portfolio as in an IRP)?
5. 2021 IRP Update Inputs: Is approach consistent with Order No. 2021-429, are there any gaps in the updates proposed by DESC?
6. EE Integration: How should DSM modeled as a resource? Please provide examples of approaches.
7. Solar ELCC: Does DESC's approach to measuring solar winter capacity contribution to the IRP make sense? What other approach or value would you recommend that DESC should adopt?
   - *Note that this question is repeated from Session II because some Stakeholders indicated that they had additional comments to provide on this topic in the last round of feedback.

1. Agenda Feedback: Should DESC devote a session to RA and LOLE?

Stakeholder Comments	Response / Action Taken
Stakeholders commented that DESC should address resource adequacy and system reliability requirements in a future IRP Advisory Group meeting.	At Session V, DESC plans to discuss resource adequacy inputs for the 2022 IRP Update and 2023 IRP with Stakeholders. DESC will provide materials two weeks ahead of the meeting for Stakeholder review that describe the proposed approaches to estimating peak requirements by season and measuring the contribution of solar and other resources towards meeting peak requirements.

2. Agenda Feedback: What topics would you like DESC to raise?

Stakeholder Comments	Response / Action Taken
DESC should provide a detailed description of proposals for meeting the requirement to "work with stakeholders to develop a wide but plausible range of load forecasts" posed by the commission.	DESC is currently finalizing the 2021 IRP Update. The company plans to address the load forecast assumptions for the 2022 IRP Update with Stakeholders as part of Working Group Session VI, please see the 2022 IRP Update schedule on slide 15.
DESC should provide stakeholders with detail about each of the assumptions that will be used in the market pricing scenarios, with time to comment. Disagreements should be resolved collaboratively.	DESC will address the 2022 IRP Update market scenarios and key assumptions at Stakeholder Working Group Session VI.
Order No. 2020-832 indicates that the Commission expects DESC to discuss in detail the reliability and resiliency considerations and the reserve requirements needed by the utility, including a traditional Loss of Load Expectation study.	DESC plans to address reliability, resiliency, and related topics at the next Stakeholder Session V. DESC will provide materials prior to meeting for Stakeholder review to assist the discussion.
The Commission orders DESC to consider more sophisticated risk-adjusted metrics in the 2022 IRP Update, their incorporation should be discussed, although not as urgent as other topics. "Sophisticated risk metrics" are those from stochastic approaches.	DESC does not currently plan to perform a Monte Carlo analysis as part of the 2022 IRP Update but will continue to consider additional risk metrics.
Marginal Line Losses: Stakeholders requested that the values that will be applied for average line losses to energy and marginal peak line losses in future IRPs be shared.	DESC will review the EE and DSM inputs for the 2022 IRP Update and discuss progress towards the 2023 IRP inputs at Working Group Session VI.
SEEM may allow utilities to capture value to ratepayers by coordinating power flows across multiple service territories. The topic deserves discussion in future sessions.	DESC will address the status of SEEM and any expected impacts on the 2022 IRP Update.

3. Retirement Study: are the assumptions aligned with the order?

Stakeholder Comments	Response / Action Taken
A Stakeholder recommended a transparent workflow between the TIA and the IRP that provides a logical connection between TIA outputs and future IRP inputs. • Suggested that the optimization model select portfolios to meet system needs, while incorporating transmission costs specific to the resources. • Suggested that DESC provide written clarifications to the TIA request (discussed on next slide).	The TIA is an initial screening study used to book-end expected costs across a wide range of options, rather than explore in detail the cost of any one particular strategy. DESC will provide further details about how the costs estimates from the TIA will be used in the IRP analysis with Stakeholders as the process advances and results are available, as indicated in the 2020 IRP Update schedule on slide 16.
The same Stakeholder also requested that all Stakeholders be able to review the files the Transmission Group uses to respond to the TIA request.	The DESC Transmission Group will provide a report to the DESC IRP Team not the underlying model or input files. DESC will share elements of this report with interested Stakeholders subject to an NDA or confidentiality requirement.

4. Retirement Study: Which replacement options should be considered?

Stakeholder Comments	Response / Action Taken
The five TIA Cases do not have a basis in economic selection or in identified reliability concerns. • Intervenors note that the substantive details of Case 5 are not described.	The TIA is an initial screening study used to book-end expected costs across a wide range of options, rather than explore in detail the cost of any one particular strategy. DESC believes the five cases selected will provide a reasonable indication of the magnitude and range of expected costs. • The DESC Transmission Group can select from different sources of purchased power that best mitigate transmission needs.
TIA request should be amended to address the following: 1. Study retirement of coal units simultaneously and sequentially. Simultaneous retirement may be more economically optimal; a sequential approach increases the risk of needless stranded costs. 2. The TIA should not specify size and type of replacement generation. It should give deference to the Transmission Group to determine the smallest amount of generation needed to mitigate issues. 3. The Transmission Group should have flexibility to combine generation, transmission, storage, and load flexibility to resolve reliability concerns; combinations may be lower cost than generation alone.	1. The five TIA scenarios include simultaneous and sequential early retirements. 2. The Transmission Group is not performing an explicit analysis to optimize the replacement of early retirements and requires specific information about what scenarios to consider in order to perform the study. 3. The Transmission Group is evaluating a combination of operational measures alongside transmission and generation mitigation options when evaluating the requirements to maintain system reliability.
DESC should consider solar and storage as a replacement options in the retirement study.	The TIA scenarios include early retirement and replacement with solar and energy storage resources and these will be considered as candidates for the retirement study.

5. 2021 IRP Update Inputs: Is the approach consistent with Order No. 2021-429?

Stakeholder Comments	Response / Action Taken
The Commission's order approving the 2020 Modified IRP requires DESC to consider a portfolio that combines early coal retirements with early additions of solar and storage.	DESC intends to model an additional resource plan in its 2021 IRP Update that introduces nearer term solar and storage resources to its approved RP8 with solar prices modeled at three levels. (See https://www.desc-irp-stakeholder-group.com/FAQ for more information)
The 2021 Update should include discussion of the impacts of SEEM. There may be potential to capture value to ratepayers by coordinating power flows across multiple service territories.	DESC will provide a status update on SEEM as part of the 2021 IRP Update.
In the 2022 IRP Update, DESC should model a portfolio that achieves ~90% reduction in CO_2 emissions by 2050, constructed using capacity optimization and production cost modeling. Include solar hybrid resources and DR and EE at reasonable prices.	DESC plans to utilize capacity optimization and production cost modeling in the 2022 IRP Update and will run a lower carbon portfolio that achieves similar levels of reductions (e.g., 90% reduction in CO_2 emissions by 2050). DESC plans to evaluate solar + storage and demand-side resources as options to meet customer load in the 2022 IRP Update.
The Commission's order approving the 2020 Modified IRP requires DESC to evaluate the economics of the "CT Plan" in the 2021 IRP Update, not to incorporate the plan into all portfolios as a foregone choice.	The Commission is evaluating the benefits of DESC's peaker modernization program in a separate proceeding (2021-93-E).
Will DESC update its 2021 IRP Update reliability factors to those of Appendix A of Intervenor's Comments on the Modified 2020 IRP? • The Stakeholder also noted that some factors, like inertia, are not services DESC is required to provide and that DESC should clarify which grid services are higher priority when comparing portfolios.	DESC intends to comply with all Commission requirements for the 2021 IRP Update, including the use of reliability factors from Appendix A of Intervenor's Comments on the Modified 2020 IRP. Inertia was removed as a reliability factor for the 2021 IRP Update as part of this change.

6. EE Integration: How should DSM be modeled as a resource?

Stakeholder Comments	Response / Action Taken
Methods used to represent EE in IRPs should be transparent and auditable.	DESC is conducting a transparent Stakeholder process to develop the EE and DSM forecasts for its service territory. The EE and DSM assumptions used in the 2022 IRP Update and the inputs to the 2023 IRP will be discussed in future IRP Advisory Group sessions.
Historic EE savings should be fully considered, and DESC may not fully capture them using a linear regression because a consistent history of EE savings is unlikely to be included in the source data.	DESC's EE modeling approach is consistent with its load forecast, and the load forecast incorporates the savings from existing and historical programs.
The information provided by DESC during Session III was not responsive to the Commission's Order to use a LCSE comparable to industry standards. • DESC should provide detailed justifications for the costs used or model blocks of generic EE at the prescribed savings levels using representative regional costs reported by LBNL. • Supply-side investments should be deferred / removed so the avoided capacity benefit of EE can be partially captured.	DESC is updating its EE and DSM analysis in compliance with Order No. 2020-832 and DESC's cost estimates are based on actual historical data from our service territory. DESC agrees that, depending on the size of the resource need, increments of demand-side investments may defer new generation which can result in savings for customers.

7. Solar ELCC: Does DESC's approach to measuring solar winter capacity contribution to the IRP make sense?

Stakeholder Comments	Response / Action Taken
Transparency of data and methods regarding solar accreditation is essential. Its determination should be auditable by Stakeholders. DESC should use a consistent methodology for measuring UCAP or ELCC to accredit thermal and renewable generation.	DESC plans to discuss the estimation of seasonal peak reserve requirements and the capacity contribution of different resource types in detail in Session V. DESC will share information with Stakeholders two weeks ahead of time describing the approach and data to be used to allow review and to enable a productive live session. DESC intends to maintain consistency when measuring the capacity value of resource additions but notes that thermal and renewable resources have different characteristics.
DESC uses a capacity value that approaches zero in winter and may not be appropriate for estimating the resource adequacy contribution of incremental solar. DESC should: 1. Evaluate several PV technologies and locations, including locations outside of DESC's territory that may provide a better match to DESC's peak loads. 2. Look at the variety of peak conditions in each season. 3. Consider approaches and methods used by LBNL and use a long-term hourly dataset as the basis for measuring the capacity value of a resources. 4. Evaluate increments less than 1,000 MW. 5. Evaluate the role of existing and future storage in supplementing solar's capacity value.	DESC plans to discuss the peak requirements and resource capacity contribution in detail in Session V. 1. The distances needed to better align are prohibitive, solar peak production is around 5pm while net peak DESC is around 8pm. 2. DESC already evaluates different peak hours and conditions on a seasonal basis. 3. Thank you for this feedback, DESC uses a long-term hourly dataset in its current analysis. 4. DESC already considers various size increments below 1000 MW. 5. The capacity value of storage is estimated separately, hybrid resources are credited appropriately based on the amount of storage installed.

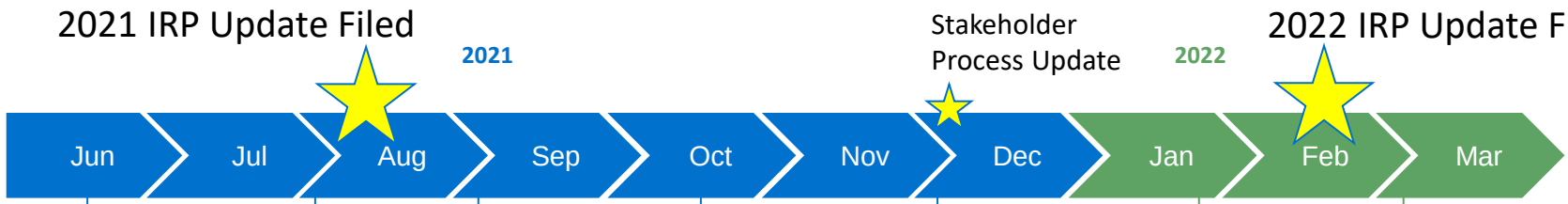
Additional IRP Advisory Group Feedback: Other

Stakeholder Comments	Response / Action Taken
PLEXOS fulfills all the required criteria except that there is not a way for Stakeholders to access the manual without utilizing the user interface	DESC has negotiated an Intervenor license with Energy Exemplar that will allow Intervenors to access the PLEXOS model and user manual.
DESC should discuss the reliability factors used to the select the preferred plan and describe the resources types that are capable of providing each reliability service.	DESC will describe the reliability factors used to select the preferred plan in future IRPs and discuss key differences in the services provided by different type of candidate resources.
Evaluation of book value and stranded costs is not needed as part of the retirement study since these costs are paid by customers in any event.	DESC agrees with this comment and has amended the retirement study plan as discussed further in Section III.

Additional IRP Advisory Group Feedback: Risk Metrics

Stakeholder Comments	Response / Action Taken
Apply minimax regrets and cost range analyses to quantify NPV and fuel costs of resource plans.	DESC intends to comply with Order No. 2021-429 which requires DESC to use the minimax analysis, evaluate cost range, and use an average ranking approach in the 2021 IRP Update and future IRPs.
DESC's risk metrics do not address weather risk and should discuss how the reliability factors used to select the preferred plan address this risk. It is recommended that DESC: • Provide more actionable information about non-hurricane service interruptions. • Observe more years, include hurricane-related outages, and create outage heat maps. • Evaluate portfolios under multiple scenarios that incorporate weather risk	DESC plans to discuss reliability factors and will discuss weather risk with Stakeholders as part of Session V. DESC will also discuss risk metrics and scenario inputs for the 2022 IRP update with Stakeholders in future sessions, see slide 16.
The average ranking approach is not appropriate for measuring risk since averages hide risk. A few high costs for a candidate resource could be masked in an overall average. DESC should consider using a measure of variance or standard deviation in future IRPs.	DESC intends to comply with Order No. 2021-429 which requires DESC to use the minimax analysis, evaluate cost range, and use an average ranking approach in the 2021 IRP Update and future IRPs. DESC will discuss additional risk metrics for the 2022 IRP Update with Stakeholders in future sessions.

Overview of Planned 2022 IRP Update Stakeholder Process



Session III

Retirement Study

2021 IRP Update

Session IV

Report on retirement Study feedback, incl. TIA details

Retirement Study Objectives, Outputs, and Timeline

Session V
(2022 Kickoff & Reliability Discussion)

Overview of Modeling approach for 2022 IRP Update (LTCE)

Opportunities for Stakeholder Feedback:
- Market Price Scenarios
- Candidate Resource Types
  - DSM / EE Options
- Risk Metrics & Resource Evaluation

Peak Requirements and Resource Contribution in the 2022 IRP Update
- Peaking Reserve Margin measurement in 2022 IRP Update

Peak Requirements and Resource Contribution in the 2023 IRP
- Discuss method for estimating peak requirements by season, contribution of solar / other resources

Session VI
(2022 Scenarios & Performance Assumptions)

Describe 2022 Scenarios and provide details of key assumptions (gas, load / peak, CO_2, DSM, etc.), discuss impact of SEEM.

Describe proposed reliability inputs and performance assumptions for candidate resource types (incl. DSM, advanced solar, purchased power)

Set expectations for development of resource plans (how many, what themes) & the lower carbon plan.

Session VII
(2022 Resource Cost & Portfolio Analysis)

Report on any updates to planned IRP assumptions

Provide details of cost assumptions for new resources, incl. PPAs, and DSM bundles

Review risk metrics incl. diversity metric to be considered and framework for evaluating portfolios

Planned alignment with Retirement Study and other DESC processes

Session VIII

Report on updates made to IRP assumptions or risk metrics

Retirement Study Update, incl. TIA findings

Session IX

2023 IRP Kickoff

DESC is in the process of finalizing the 2021 IRP Update and the final procedural schedule for the 2022 IRP Update has not yet been defined by Commission order. This planned schedule is subject to change.

Questions? Please use the Chat function

DESC IRP Stakeholder Advisory Group Meeting #4

II. Responses to Stakeholder TIA Questions

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- Tools and Models Used
- Study Inputs and Options Considered
- Study Outputs and Transparency
- *Discussion*

Update on tools used by the Transmission Group

- What tool or model is the Transmission Group using to perform the TIA, can you provide any further details or description of the approach to Stakeholders?
  - DESC's Transmission Group is using industry standard, utility-coordinated models to evaluate the transmission impacts of the early retirement of the Wateree and Williams generators under five different replacement scenarios. The tools to be used include PowerWorld Simulator and the Siemens PTI PSS®E suite of products. The Transmission Group is performing power flow analysis, short circuit, and limited stability analysis of its system at peak, shoulder, and light load conditions under different system contingencies. Through that analysis, interconnection and network upgrades necessary to maintain system reliability will be determined for each of the five scenarios provided by the DESC IRP Team.

Update on options being considered to maintain system reliability

- What are the options that the Transmission Group is considering in the TIA? For example, Stakeholders are interested in confirming and understanding whether re-dispatch and other operational measures are being evaluated as alternatives to new transmission or generation investments to maintain reliability, and the general categories of options considered.
  - Yes, operational measures to maintain system reliability, including re-dispatch, are being considered as much as are allowed by the scenarios defined or specific system contingencies studied under each scenario per the NERC TPL-001 Reliability Standard.

Update on options being considered to maintain system reliability

- Are energy storage or other distributed energy resources are considered as solutions the transmission issues? If storage is considered, what duration is used (e.g., 4-hour?)
  - DESC understands the potential for these technologies in the future, but for the purpose of this retirement study, additional incremental storage beyond what has been defined in the five scenarios is not being evaluated as a measure to maintain transmission reliability.
  - The TIA is an initial screening study focused on evaluating the potential costs of different retirement and replacement scenarios. It is being used to book-end expected costs across a wide range of options, rather than explore in detail the cost of any one particular strategy. DESC is considering retirement of a large portion of the existing system and expects that declining to evaluate incremental battery storage as a transmission solution, beyond what is defined in the replacement scenarios, will not materially overstate expected costs. Batteries and other distribution assets can be evaluated at a future stage in the context of specific projects or a future interconnection study.
  - ESS units included as replacement generation in the five replacement scenarios are modeled as 4-hour duration storage.

Update on options being considered to maintain system reliability

- Stakeholders are interested specifically in the types of transmission measures the TIA would include in its list of candidates, and whether this includes advanced technologies such as grid-forming inverters.
  - DESC understands the potential for these technologies in the future, but for the purpose of studying the early retirement of existing coal units more traditional technologies are being evaluated. DESC believes this approach is reasonable given the timeframe of the analysis and does not believe that this approach risks materially overstating the expected cost of maintaining a reliable transmission system under different conditions.

Update on the format of TIA outputs and level of access provided

- What TIA outputs will be shared with Stakeholders? Will DESC provide the modeling files or some version of the report? What kind of cost and reliability results are provided?
  - The Transmission Group will be providing the DESC IRP Team with a report that describes the overall approach and details the results of the five scenarios studied. This report will explain the measures needed to maintain system reliability under each scenario and the expected cost of those measures. DESC will share elements of this report with interested Stakeholders subject to an NDA or confidentiality requirement.
  - The Transmission Group has not historically provided the underlying models used to perform transmission studies to the DESC IRP Team, and we do not expect that the models used for the TIA analysis will be shared with the DESC IRP Team or the IRP Advisory Group Stakeholders.
- Will DESC run another TIA to support the 2023 IRP after evaluating the preferred plan?
  - No. Any new generation selected as part of the 2023 IRP preferred plan will be informed by the specific projects that are submitted to DESC as part of the planned All Source Procurement Plan. Any generators selected as part of the 2023 IRP process will require corresponding formal interconnection requests to be submitted to the DESC Interconnection Queue and be processed according to the FERC Large Generator Interconnection Procedures.

Questions, Comments? Please use the Chat function

DESC IRP Stakeholder Advisory Group Meeting #4

III. The Retirement Study Inputs and Process

III. The Retirement Study Inputs and Process

- Approach to Evaluating Early Coal Retirements
- Key Inputs and Assumptions Needed for Planned Approach
- Details of Retirement Study Timeline and Alignment with Inputs
- *Discussion*

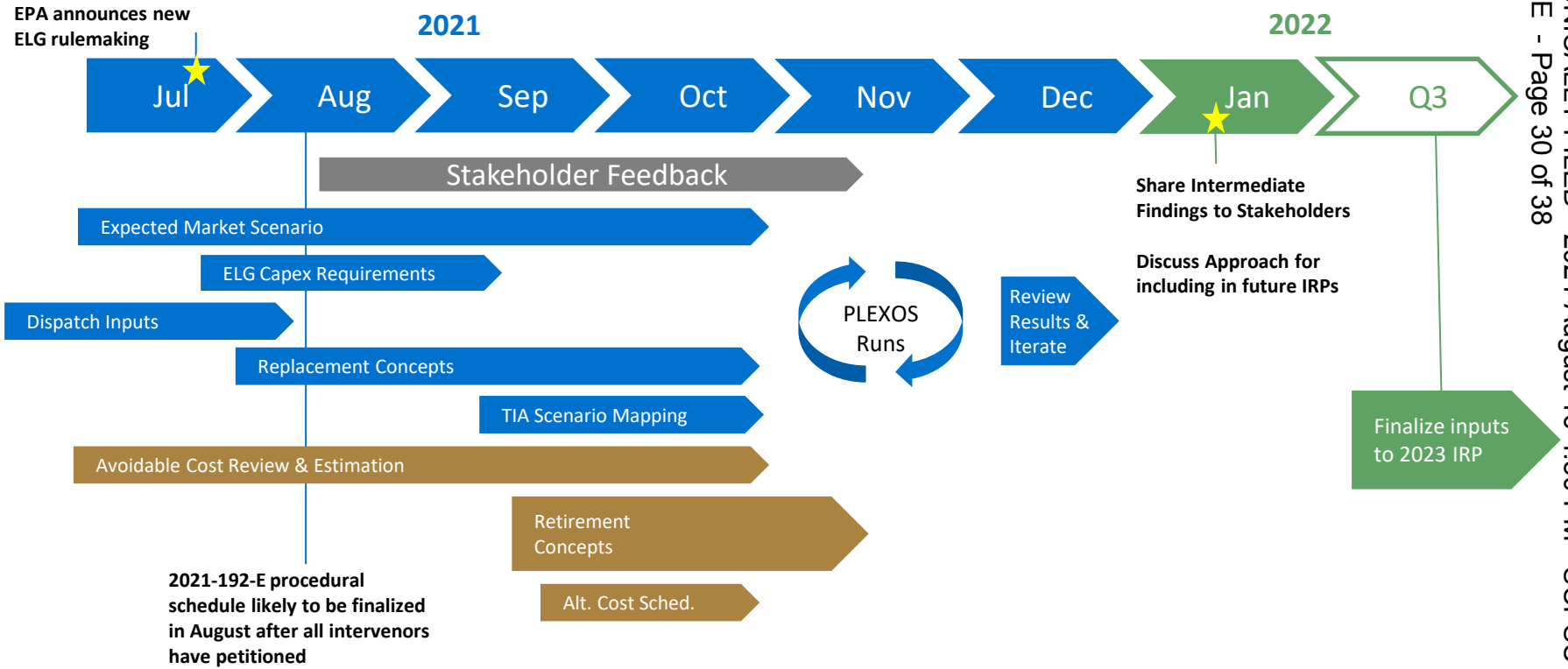
Approach to Evaluating Early Coal Retirements

- In previous IRPs both the Wateree and Williams plants are operated until the end of their useful lives.
- DESC is now in the process of evaluating expected futures costs of operating and maintaining each plant in compliance with expected environmental requirements to determine which dates provide the best opportunity to avoid future expected costs to customers.
- In the upcoming evaluation, DESC will selected a number of "retirement concepts" to evaluate the expected savings (or cost) to serve customer load resulting from the early retirement and replacement of the Wateree and Williams plants, at different points in time, in comparison to continuing to operate the facilities.
  - Each concept will include retirement of one or both units (sequentially and simultaneously) at different future dates informed by the avoidable cost evaluation.
  - PLEXOS will select replacement resources from a limited set of options defined as inputs to the resource optimization function, the cost of these options may be informed by market information.
  - DESC will estimate the expected transmission upgrade costs associated with each retirement / replacement combination based on the results of the forthcoming TIA, expected in December of 2021.
  - DESC will compare total costs to serve load to determine which retirement concept(s) provide the greatest benefit for customers when accounting for the costs avoided by early retirement, replacement costs, and transmission upgrade costs.

Key Inputs and Assumptions Needed for Planned Approach

- *Market Scenario Inputs*
  - DESC plans to evaluate how early retirement and replacement of Wateree and Williams at various points in time will affect expected customer costs compared with continued operation. The market conditions (e.g., load, fuel prices, emissions pressure, etc.) studied will influence whether early retirement shows a net benefit or cost.
- *Avoidable Costs at Existing Coal Units (Operating and Fixed)*
  - Continuing to operate Wateree and Williams may require investment in environmental controls. Similarly, planned maintenance on the units can be deferred or avoided if the company decides to retire them. DESC is currently performing an avoidable cost review to determine the key elements and timing of expected capital spending that can be avoided by early retirement and estimating the amount saved.
- *Replacement Options, including Cost and Performance Assumptions*
  - The generation and reliability value provided by Wateree and Williams will need to be replaced if the units are retired early. The type and amount of these replacements, as well as their assumed costs and characteristics, will affect the expected benefit or cost to customers of early retirement. DESC will develop a limited set of replacement options for the Retirement Study in a transparent process with Stakeholders.
- *TIA Scenario Mapping*
  - The TIA is intended to provide a reasonable view of the magnitude of transmissions upgrade costs associated with replacing the existing coal units and an indication of the range of costs across different replacement strategies. Once these estimates are known, DESC will apply them to a different set of resources selected as part of a future IRP.

Details of Retirement Study Timeline and Alignment with Inputs



Questions? Please use the Chat function

DESC IRP Stakeholder Advisory Group Meeting #4

IV. Preparing for Session V and Next Steps

V-. Preparing for Session V and Next Steps

- Planned Session V Agenda
- System Reliability Materials for Stakeholders
- Session IV Homework
- *Discussion*

Setting expectations for Session V

- Session V will occur in approximately 6 weeks and focus on the 2022 IRP Update and the methods DESC will use to estimate reserve requirements and the resource adequacy contribution of different technologies.
  - DESC will share supporting materials with Stakeholders two weeks prior to Session V.
- DESC anticipates Session VI to convene in October and focus on the Market Pricing Scenarios and Resource Options considered in the 2022 IRP Update.

IRP Advisory Group Session VI:
- DESC to share planned 2022 IRP Update Scenarios and discuss the candidate resource options and their characteristics (incl. resource adequacy)

DESC 2021 IRP Update Filed

Reliability Materials Provided

IRP Advisory Group Session V:
- DESC to kick off 2022 IRP Update and discuss planned approach to measuring resource requirements and accrediting resources

System Reliability Materials for Stakeholders

- DESC will provide the requested chart clarifying the reliability contribution provided by each resource type across the reliability factors used in the 2022 IRP Update.

- DESC will provide materials describing the approach and data currently used to estimate seasonal peak requirements and resource capacity contribution in the DESC service territory for Stakeholder Review prior to Session V.

- In addition to reviewing these 2022 IRP Update materials at Session V, DESC will also discuss potential approaches to reliability measurement that may be adopted for the 2023 IRP, including:
  - New reserve margin policy (possibly)
  - Measuring peak requirements and key inputs to LOLE study
  - Estimating the capacity and reliability contribution provided by incremental solar vs. other resource types

Feedback Requested from Session IV

- Agenda Feedback:
  - Did DESC miss any topics proposed by Stakeholders, what topics do Stakeholders want to see addressed at future sessions?
- 2022 IRP Update Schedule:
  - What changes or additions would you propose to the schedule, are there any key topics not reflected on the planned schedule of meetings?
- Retirement Study:
  - Does evaluation in a reference case make sense, what other market scenario(s) should be considered?
  - What generation replacement options should be evaluated using PLEXOS?
- Resource Adequacy Analysis:
  - DESC currently uses SAS to develop peak requirements, are there other tools that Stakeholders recommend?

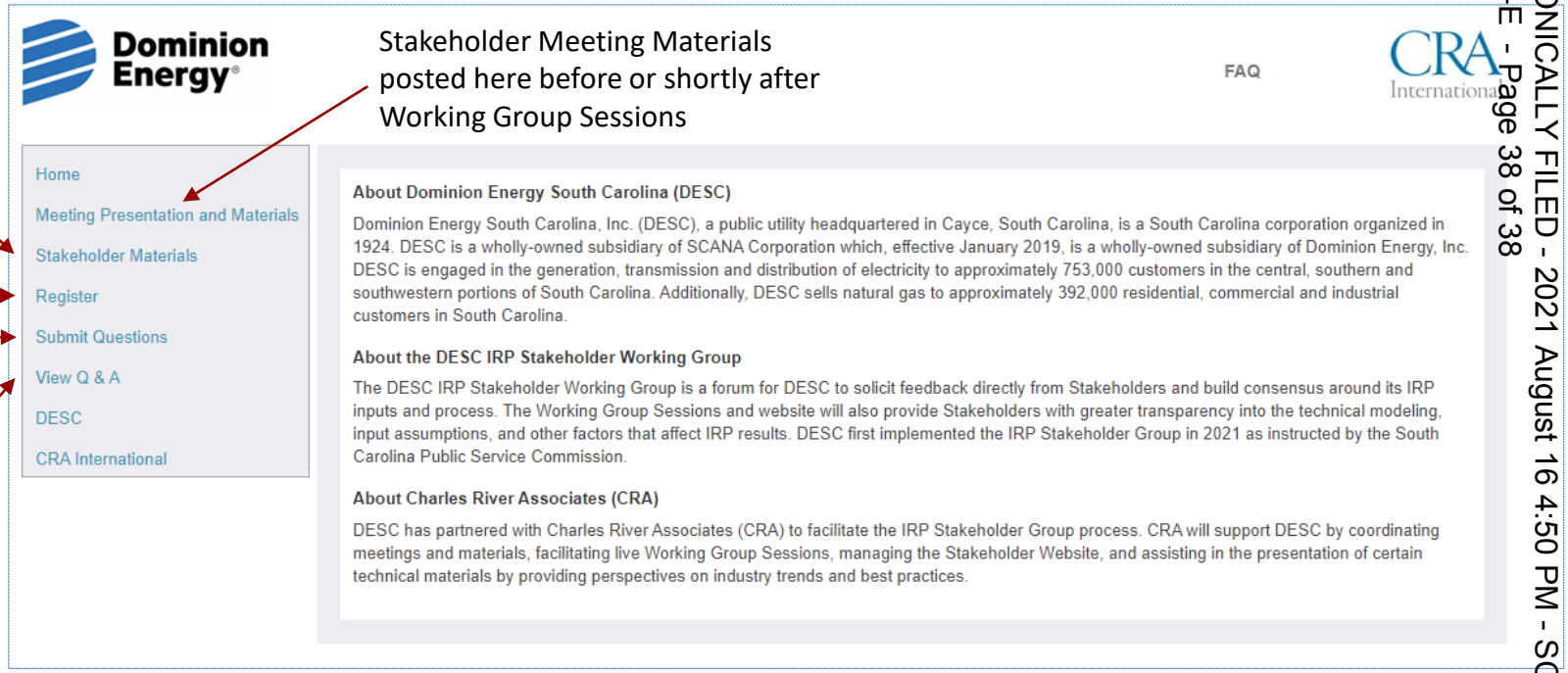
Discussion - Please “Raise Hand” in the Chat

Stakeholder Website Overview

Supplemental materials and QA support documents

Registered users can submit on-topic Questions to DESC

Published QA can be viewed by public



https://www.DESC-IRP-Stakeholder-Group.com

Email DESC-IRP-Group@crai.com with questions about the website or if you have content to share with the Stakeholder Group